

REMARKS

Claims 1-14 are pending.

Claims 1-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,219,227 to *Trane* (hereafter *Trane*). Claims 1-14 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of U.S. Patent No. 5,568,224 to *Saegusa* (hereafter *Saegusa*).

Claims 2, 4, and 6 has been amended to correct informalities and antecedent basis problems.

The Applicants respectfully assert that the amendments to Claims 2, 4, and 6 are not narrowing amendments made for a reason related to the statutory requirements for a patent that will give rise to prosecution history estoppel. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 56 U.S.P.Q. 1865, 1870 (Fed. Cir. 2000).

I. REJECTION UNDER 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane*. The Examiner also rejected Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of *Saegusa*.

To establish a *prima facie* case of obviousness, the Examiner must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.

The Examiner rejected Claims 1-10 as being obvious and unpatentable over *Trane* and cites Figures 1-3 and 6 and their respective description sections for support.

Claim 1 of the present invention recites a notebook computer with an I/O physical user interface comprising a base containing a keyboard wherein the base has an extended portion beyond the keyboard creating a widened keyboard base, a widened display having a widened I/O display area corresponding to said widened keyboard base wherein the widened display has a width substantially equal to a width of said widened keyboard base. The notebook computer of Claim 1 further has an I/O device area disposed within the extended portion of said widened keyboard and an interface signal connection means mounted within said I/O device area operable to couple signals from the notebook computer to an I/O device.

Trane discloses a portable computer system modified to include a printer device. It is important to note that one of ordinary skill in the art would understand the difference between the width of the portable computer system (horizontal dimension) when the portable computer is opened for use and the height of the portable computer system (vertical dimension) perpendicular to the horizontal dimension measured when the lid of the portable computer system is closed. In *Trane*, the portable computer systems incorporating a display device dispose the display device in this lid. *Trane* discloses a cell phone above the keyboard. If *Trane* increases the size of the keyboard base to accommodate the cell phone, then the lid would have to increase in the vertical direction. Increasing the lid in this dimension would then allow the display to be modified only in the same vertical direction. Likewise there would not be a correspondence between the modified keyboard base and the modified display as is recited in the present invention.

Furthermore, the notebook computer of Claim 1 has a base containing a keyboard "wherein said base has an extended portion beyond said keyboard creating a widened keyboard base." The portable computer system of *Trane* does not teach or suggest widening the base containing the keyboard. In fact, in Figure 1, *Trane* attaches a printer device 18 to one side (width) of the keyboard base and a paper tray 20 to the other side. The printer device 18 is a device that is "securable" to the computer system of *Trane* and

is not a part of a widened base. The paper tray 20 of *Trane* is integrated within the outer casing 34. See *Trane* column 9, lines 4-11. The outer casing 34 is the keyboard base of Claim 1 of the present invention.

Trane also incorporates an area in the base for a portable telephone but *Trane* does not teach or suggest an extended portion beyond the keyboard creating a widened keyboard base. *Trane* does not indicate how the area for the portable telephone is provided, but *Trane* does not teach or suggest a base containing the keyboard wherein the base has an extended portion creating a widened keyboard base.

The Examiner states that feature 16 of Figure 1 teaches a widened portion. Feature 16 is a cellular or a satellite phone. See *Trane* column 4, lines 40-49. Feature 16 of *Trane* could be accomplished by reducing the size of the keyboard or the phone itself so that it fits within an existing keyboard base. There is no teaching or suggestion by *Trane* to create a widened keyboard base as set forth in Applicant's claimed invention.

Since *Trane* does not suggest or teach "a widened base, then it follows that *Trane* does not teach or suggest a widened display having a widened I/O display area corresponding to said widened keyboard base wherein said widened display having a width substantially equal to the width of the widened keyboard base." The Examiner states that *Trane* teaches a widened display corresponding to the widened keyboard base and cites *Trane*, feature 14 of Figure 1. Feature 14 of Figure 1 is a display, however *Trane* does not teach or suggest that the display is widened. Further, the Examiner states that *Trane* teaches a widened display having a width substantially equal to the width of the widened keyboard base and cites the features 14 and 24 of Figure 1. While the Applicant agrees that the display 14 and the keyboard 24 of *Trane* have substantially the same width, neither is widened as recited by Claim 1 of the present invention. *Trane* states that while the display device 14 can be of any size, its preferable size has a horizontal dimension (width) equal to or less than thirteen inches. There are no teachings in *Trane* for widening the display. Instead, *Trane* is suggesting that the size of the display be limited to less than or equal to thirteen inches. The reason for this is that *Trane* is

teaching something entirely different than the present invention. *Trane* does not want his invention to require a bigger display. *Trane* is teaching adding a printer and adding a cell phone that can use the portable computer's power supply and internal, larger cell phone antennae. See *Trane*, column 2, lines 8-19. Thus, a smaller display requiring less power is more desirable in *Trane*.

Since *Trane* does not teach or suggest a widened keyboard base and a widened display having a width substantially equal to the widened keyboard base, *Trane* does not teach or suggest an I/O device area disposed within the extended portion of the widened keyboard base. There is no room in the portable computer of *Trane* in the width direction. The securable printer of *Trane* takes one side and the paper tray that is disposed within the keyboard base 34 takes the other side. Claim 1 of the present invention positively recites a widened keyboard base and a corresponding widened I/O display area. As stated earlier, the Applicant asserts that the Examiner is equating the width of a notebook computer with its height. These are two totally different dimensions. For example, if a standard keyboard layout is used, the number of characters incorporated in a row determines the width of the keyboard and the number of rows determines the height. Standard size keyboards have specific sized keys and thus the dimensions (width and height) are determined. To change this, one has to reduce the number of keys or the dimension of the keys. The width of a notebook computer is determined by the keyboard and other functions integrated into the keyboard base. The lid has to cover this area but the display incorporated in the lid does not have to be a certain dimension, it just has to fit into the lid. In *Trane*, the preferable size for the display device is less than or equal to thirteen inches. *Trane* does not purposely widen the display area; rather, *Trane* tries to minimize the width of the display device. *Trane* teaches away from the invention of Claim 1 where the display is purposely widened to correspond to the widened keyboard base that has an extended width portion to accommodate an I/O device area.

The Applicant has shown that *Trane* does not teach or suggest a widened keyboard base or a widened display area. Therefore, the Applicant respectfully asserts that *Trane* also does not teach or suggest the I/O device area disposed within the extended portion of the widened keyboard base nor does *Trane* teach or suggest an interface signal connection means mounted within the I/O device area of Claim 1. *Trane* does not teach or suggest all the limitations recited in Claim 1 of the present invention. Therefore, the Applicant respectfully asserts that the rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed.

Amended Claim 2 is dependent from Claim 1 and limits the I/O device area to an area recessed below a surface of the extended portion of the widened keyboard base. Claim 2 contains all the limitations of Claim 1. The Examiner states that *Trane* teaches the invention of Claim 2 and cites feature 46 in Figure 3 of *Trane*. Feature 46 of *Trane* is a recessed area for a cell phone, which is not within an extended portion of the widened keyboard base of Claim 1. The fact that *Trane* teaches a recessed area in the keyboard base does not teach or suggest the invention of Claim 1 with the further limitation that the extended portion of the keyboard base has a particular recessed area. The Applicants have shown that *Trane* does not teach or suggest the invention of Claim 1. Therefore, the Applicant asserts that the rejection of Claim 2 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 3 is a dependent claim from Claim 2 and further limits the "interface signal connection means" of Claim 1 to be disposed within the recessed I/O device area. Claim 3 contains all the limitations of Claim 1 and Claim 2. The Examiner states that *Trane* teaches the invention of Claim 3, and cites "feature of Figure 3" as his basis, without specifically pointing out which particular features of Figure 3 teach the limitation of Claim 3. In Figure 3, *Trane* is illustrating a cell phone 48 and its corresponding receiving opening 46. First, a cell phone is considered a communications device and not an I/O device. The cell phone may communicate with an I/O device; however, one of ordinary

skill in the art would not normally associate a cell phone as an I/O device. Secondly, the "cellular telephone receiving opening 46" is not in an extended portion of the keyboard base. Cellular telephone receiving opening 46 is included in access cover 38 and receives "the cellular phone 16 in a snap-fit type or the like manner." See *Trane* column 5, lines 30-32. Likewise, it states in this section of *Trane* that "the cellular telephone receiving opening 46 is preferably sized and shaped substantially equal to the size and shape of the cellular telephone 16 thereby securely (sic) releasably maintaining the relative position of the cellular telephone 16 within the cellular telephone receiving opening 46." It is clear that *Trane* is teaching an opening in the access cover 38 that is specifically designed for a communicating device, a cellular telephone 46. The Applicant respectfully asserts that *Trane* is not teaching or suggesting the invention of Claim 3. The Examiner, after seeing the present invention, apparently concludes that since *Trane* is teaching a cellular telephone receiving opening 46 in the access cover 38, it would have been obvious to extend the keyboard base creating a widened keyboard base, incorporate a widened display with a widened I/O display area corresponding to the widened keyboard base, incorporate an I/O device area within the extended portion of the widened keyboard base and incorporate an interface signal connection means within the I/O device area, wherein the I/O device area is recessed. Clearly this assertion of obviousness is made possible only with knowledge of the present invention and is impermissible hindsight. See MPEP § 2145 "Arguing Improper Rationales For Combining References". Therefore, the Applicant respectfully asserts that the rejection of Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Amended Claim 4 is a dependent claim to Claim 2 and adds an interface connection interposer disposed between the interface signal connection means and the I/O device of Claim 1. Dr. Ken Gilleo of Cookson Electronics, "Chip Scale or Flip Scale-The Wrong Question?" (www.cooksonsemi.com/tech_art), defines a chip scale interposer as "an electromechanical structure that supplies mechanical and electrical interconnection compatibility between an IC and a printed circuit board. The interposer

may provide rerouting, testability, handling ease, and environmental protection while facilitating standardization." The Examiner states that *Trane* teaches the invention of Claim 4, and cites "feature of Figure 3" as his basis, without specifically pointing out which particular features of Figure 3 teach the limitation of Claim 4. Figure 3 of *Trane* illustrates portable computer assembly 10, cellular telephone 16, printer device 18, cellular telephone receiving opening 46, cellular telephone battery pack 48, cellular telephone antenna 50, antenna connection 56, and a protrusion 58. See *Trane*, columns 4, 5 and 6. The Applicant fails to see any feature of Figure 3 that is an "interface connection interposer" as recited in Claim 4. *Trane* is teaching a cellular telephone receiving opening 46 shaped substantially equal to the size and shape of the cellular phone 16. *Trane* expects to connect only one particular communicating device using opening 46 and contacts 54 and thus would have no need for an interface connection interposer. Therefore, the Applicant respectfully asserts that the rejection of Claim 4 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 5 is dependent from Claim 4 and further limits the interface connection interposer to one that is "disposed within said recessed I/O device area" of Claim 2. The Applicant has shown that *Trane* does not teach or suggest any interface connection interposer as recited in Claim 4. Therefore, the Applicant respectfully asserts that the rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and Claim 4.

Claim 6 is dependent from Claim 4 and further limits the interface connection to one that is "operable to compensate for both mechanical and signal routing differences between said interface connection means, said recessed I/O area and said I/O device." The Applicant has shown that *Trane* does not teach or suggest any interface connection interposer as recited in Claim 4. Therefore, the Applicant respectfully asserts that the rejection of Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and Claim 4.

Claim 7 is dependent from Claim 1 and defines the widened I/O display area as an area used to display operational data relative to operation of the I/O device when the I/O device is sending signals to the notebook computer. The Examiner states that *Trane* teaches the invention of Claim 7 and cites "feature of columns 9-10 lines 43-6." The Examiner again fails to distinctly point out what in this recitation he regards as teaching the invention of Claim 7. The only reference in this recitation directed to any type of display is in column 9, lines 43-47. In this reference, *Trane* states: "additionally, the portable computer assembly 10 of the present invention can include an LCD monitoring display (not shown) on the outer casing form providing information, e.g., battery status, power on status, speaker status, etc. to the use of the portable computer assembly 10."

Claim 1 of the present invention is specific in reciting "a widened display, said widened display having a widened I/O display area corresponding to said widened keyboard base, said widened display having a width substantially equal to a width of said widened keyboard base." The Applicant has shown that *Trane* does not teach or suggest the widened I/O display area of Claim 1. Claim 7 further limits this I/O display area as used to display data relative to operation of the I/O device that is coupled to the notebook computer with the interface signal connection means mounted within the I/O device area that is disposed within the extended portion of the widened keyboard base. In this recitation, *Trane* states that another LCD display can be added to the outer casing. *Trane* does not define the outer casing, however it is clearly not a widened I/O display area as recited in Claim 7 of the present invention. Therefore, the Applicant respectfully asserts that the rejection of Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claims 8 and 9 are dependent from Claim 1 and contain all the limitations of Claim 1. Claim 8 recites that the notebook computer of Claim 1 is operable to execute first communication software instructions for controlling communication between the notebook computer and the I/O device. Claim 9 recites that the notebook computer of Claim 1 is operable to execute second communication software instructions for controlling communication between the notebook computer and the I/O device. The

Examiner states that *Trane* teaches "first/second communication software instructions controlling communication between said notebook and said I/O device and cites "feature of columns 9-10, lines 43-46. The Examiner again fails to distinctly point out what in this recitation he regards as teaching the invention of Claims 8 and 9. The Applicant has shown that *Trane* does not teach or suggest the notebook computer of Claim 1. Therefore, the Applicant asserts that *Trane* does not teach or suggest the notebook computer of Claim 1 with the limitations of Claims 8 and 9. Therefore the Applicant respectfully asserts that the rejections of Claims 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 10 is dependent from Claim 1 and contains all the limitations of Claim 1. Claim 10 further limits the I/O device of Claim 1 to having functionality wholly separate from any communication signaling or connection with the notebook computer. The Examiner states that *Trane* teaches the invention of Claim 10 and cites feature 48 of Figure 3. Feature 48 is a battery pack and *Trane* suggests that cellular telephone 16 (communication device) is operable when not coupled to portable computer 10. However, cellular telephone 16 is a communication device and not the I/O device recited in Claim 1 of the present invention. The Applicant has shown that *Trane* does not teach or suggest the notebook computer of Claim 1 of the present invention. Therefore, the Applicant asserts that the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1.

The Examiner has explicitly stated that *Trane* teaches all the basic claimed limitations of Claims 1-14. However, the Examiner then states that relative to Claims 1-10, the difference between the claimed invention and teachings of the *Trane* reference is that the reference does not identically or expressly teach the claimed limitation of "widened display." Notebook computers are designed to be as small as possible for both form factor and cost reasons. Displays are expensive and the cost for larger displays increases non-linearly with display size. *Trane* expressly teaches that his "novel portable

computer assembly 10" is "comparable in size and price to the conventional portable computer." The present invention is teaching widening the display. Whatever the size of the notebook computer, the present invention "widens" the display so that the notebook of the present invention would never be comparable in size and price to the "conventional" portable computer. The reason is that the display on the notebook computer of Claim 1 is "widened." Just because particular prior art could be modified to use a widened display does not mean that it teaches or suggests Applicant's claimed invention. The fact that one of ordinary skill in the art would be capable of making the claimed invention of Claim 10 is not sufficient by itself to establish *prima facie* obviousness. M.P.E.P. § 2143.01. Therefore, the Applicant respectfully asserts that simply choosing to incorporate a display whose size is determined by the designer does not lead to the invention of Claim 1. It simply leads to a notebook computer with a particular display size. Therefore, the Applicant asserts that the Examiner's statement that the widened display of Claims 1-10 is an obvious design choice is traversed for the reasons stated above.

Claims 11-14 recite method steps for interfacing an I/O device to a notebook computer. The Examiner states that Claims 11-14 are not patentably distinct from Claims 1-10 and that the teachings of the claims 1-10 are similarly applied. Claims 11-14 recite method steps for interfacing an I/O device to a notebook computer and Claims 1-10 recite a notebook computer. The notebook computer of Claims 1-10 has features that employ method steps of Claims 1-10 and as such are both patentable. To the extent that the notebook computer of Claims 1-10 explicitly implement a method step of Claims 11-14, the Applicant has already shown that *Trane* does not teach or suggest these limitations. Therefore, the Applicant asserts that the rejections of Claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claims 1-10.

The Examiner also rejects Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of *Saegusa*. The Examiner has stated that *Trane* does

not expressly teach the claimed limitation of a "widened display." The invention of Claim 1 widens the display over what is needed for a standard display function. Claim 1 recites a notebook computer with a widened display, the widened display's relationship to a base for containing a keyboard which has been extended beyond the keyboard to form a widened keyboard base, the widened display's relationship to an I/O device area disposed within the extended portion of the widened keyboard base and the widened display's relationship with an interface signal connections means mounted within the I/O device area for coupling signals between the notebook computer and an I/O device. The fact that a notebook computer is capable of utilizing a wide screen display is a factor that supports that the present invention is enabled but by itself does not in any way render the invention of Claim 1 as being obvious. The Examiner rejected the portion of Claim 1 reciting a "widened display" as being obvious over *Trane* because *Trane* states that the invention may use any size display according to the designer's choice. While it may be the designer's choice to use a small or large screen display, the result of that choice does not produce a device with the same limitations as Applicant's claimed invention. Case law has held that a claimed invention may be rendered obvious if the claim is directed to a feature that is a simple matter of design choice (e.g., the position of a switch that does not modify the operation of a device). See *In re Kuhle*, 526 F.2d 553, 188 U.S.P.Q. 7 (CCPA 1975). Also see M.P.E.P. § 2144.04 C (Rearrangement of Parts). Claim 1 of the present invention does not simply recite a wide screen display, rather, it recites a widened display in relationship to other elements. It is the combination of elements that renders Claim 1 non-obvious over the prior art.

The Applicant has shown that *Trane* does not teach or suggest the limitations of Claims 1-10. Those arguments as stated above are included by way of reference in support of the Applicant's arguments regarding the combination of *Trane* and *Saegusa*. The Examiner then states that *Saegusa*, column 2, lines 51-53, teaches "notebook 3 capable of wide screen display based on a dot LCD and incorporates a communication function." The Examiner states that "this is another/additional more specific support/evidence of the Examiner's 103 motivation 'obvious design choice' rationale."

Trane discloses a notebook computer capable of attaching a printer to the side of the notebook and capable of holding a cell phone communication device above the keyboard. *Trane* does not teach or suggest any of the other limitations or relationship between elements recited in Claim 1 of the present invention. Adding a different display to *Trane* simply results in the invention of *Trane* with a different display. The invention of *Trane* is not dependent on any particular display therefore the display type does not matter, thus the use of a particular display is a "design choice" for the invention of *Trane*. This is the case with Claim 1 of the present invention, therefore the Examiner's argument of design choice does not apply. *Saegusa* discloses a system for setting data of a camera. *Saegusa* is concerned about a camera that has set data for controlling the function of the camera body (f-stops, exposure times, zoom, etc.). Set data can be applied to the camera from buttons on the camera body or by attachments connected to the camera body (e.g., an electronic notebook 3). The invention of *Saegusa*, like the invention of *Trane* is not dependent on any particular display therefore the display type does not matter. Thus, the use of a particular display is a "design choice" for the invention of *Saegusa*. The fact that *Saegusa* makes the statement that an electronic notebook "is also connectable via a connection cable to the camera body" (See *Saegusa* column 2, lines 20-22) and is "capable of wide screen display based on a dot LCD and incorporates a communication function" (See *Saegusa* column 2, lines 51-53) does not render the notebook computer of Claim 1 obvious. There are no teachings or suggestions in *Trane* or *Saegusa*, singly or in combination, that would lead someone of ordinary skill in the art to arrive at Claim 1 of the present invention. Therefore, the Applicant respectfully asserts that the rejections of Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of *Saegusa* are traversed.

III. CONCLUSION

The rejections of Claims 1-14 under 35 U.S.C. § 103(a) as being obvious and unpatentable over *Trane* have been traversed. The rejections of Claims 1-14 under 35 U.S.C. § 103(a) as being obvious and unpatentable over *Trane* in view of *Saegusa* have been traversed. Claim 2 has been amended to correct an informality where I/O device area was repeated. Claim 4 has been amended to correctly depend on Claim 2 so that Claim 5 will have the correct antecedent basis for recessed I/O area. Claim 6 has been amended to correct an antecedent problem pointed out by the Examiner. The Applicant, therefore, respectfully asserts that Claims 1-14 are now in condition for allowance and requests an early allowance of these claims.

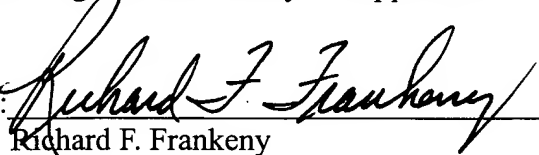
Applicant respectfully requests that the Examiner call Applicant's attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

WINSTEAD SECHREST & MINICK P.C.

Patent Agent and Attorney for Applicants

By:


Richard F. Frankeny

Reg. No. 47,573

Kelly K. Kordzik

Reg. No. 36,571

P.O. Box 50784
1201 Main Street
Dallas, Texas 75250-0784
(512) 370-2872